

INFORMATION REQUIRED FOR A RADIATION SHIELDING PLAN REVIEW

Please complete and include this form **with your x-ray room plans and specifications** according to the guidelines listed below.

Submit x-ray room plans and specifications with this form to:

Bureau of Health Systems, Radiation Safety Section
Michigan Department of Community Health
1st Floor, Ottawa Building
611 W. Ottawa
Lansing, Michigan 48933

Please notify the Radiation Safety Section promptly if changes are made which should be reevaluated. If there are any questions, please call (517) 241-1989.

Facility Identifying Information for the Proposed Installation

Name of contact individual at facility: _____
Facility name and address: _____

Send report to this address _____

Room numbers(s) or description: _____

Submitter Information (if different than above, else write "same")

Name of individual submitting the plans: _____
Company name and address of submitter: _____

Send report to this address _____

Facility Registration and Certificate of Need Information

Facility registration number (if assigned): _____

X-ray installations that require a certificate of need (CON) include: megavoltage radiation therapy, C.T. scanners, and cardiac catheterization

Has a CON number been assigned, if necessary? Yes CON #: _____
No

Type of facility (check one):

| | | | |
|-------------|------------------|-----------|--------------|
| Hospital | Radiology Office | M.D./D.O. | Chiropractic |
| Podiatric | Veterinary | Dental | Industrial |
| Educational | Other _____ | | |

Machine Information

Type of machine (check all that apply):

| | | | |
|----------------------|--------------------|--------------|-------------|
| Radiographic | Extremity only | Fluoroscopic | CT |
| Mammographic | Linear accelerator | Cardiac cath | Educational |
| Dental cephalometric | Dental tomographic | Other _____ | |

Maximum kilovoltage (kVp): _____
Maximum milliamperage (mA): _____

Anticipated radiographic workload (mA-minutes per week) _____
OR Therapeutic workload (rads or cGy per week at 1 meter) _____

Architectural Information

Provide plans or blueprints of rooms and adjacent areas (to scale). Scale must be 1/4 inch per foot or greater. The plans or blueprints must show the position of:

| | |
|---|---------------------------------------|
| All x-ray equipment and accessories | Doors |
| Windows | Operator's barrier |
| Patient viewing window | Compass directions |
| Wall cassette holder | Exposure switch |
| X-ray table (and extent of movement) | X-ray tube (and extent of movement) |
| The exact location of all proposed shielding* | The height of the shielding installed |

*Specify proposed shielding, such as lead (note thickness), brick veneer, solid or hollow-core concrete block, cinder block, poured concrete, etc. Indicate the thickness and density of concrete and masonry materials. For corrugated concrete floors and ceilings that are used as shielding, please include the MINIMUM concrete thickness and the density (or unit weight) of the concrete in pounds per cubic foot.

Include a description of the occupancy and control of adjoining areas including above and below the x-ray room on the plans. Include a description of any area beyond an outside wall, such as lawn, parking lot, and sidewalk. For exterior walls, show distance to property line and to closest area where individuals may be present. Include the distance to any multistory buildings which are nearby.

CT scanner

Please include a copy of the iso-exposure curve normally provided by the manufacturer.

Linear Accelerator

For accelerator facilities, include all assumptions and calculations upon which the proposed shielding is based. Such calculations should address instantaneous dose equivalent rates, as would be measured with a rate-type survey meter, and integrated weekly doses to adjacent areas for worst-case operating conditions. Specify neutron shielding methods for duct work and for other room penetrations, such as the use of borated polyethylene on doors.

For assistance in proposing shielding, some general shielding guidance is available on our web site at <http://www.michigan.gov/rss> under Radiation Shielding Information.